

# Health Services Utilization: Framework and Review

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by James G. Anderson

*Five different approaches that have been used to study the utilization of health services are reviewed: the sociocultural, sociodemographic, social-psychological, organizational, and social systems. Studies characterizing each approach are described and the limitations of each perspective are outlined. It is suggested that social system models that explicate causal structures and that incorporate features of all the other approaches may provide important new insights into utilization behavior.*

Research on the utilization of health services has traditionally taken several quite distinct approaches. On the basis of earlier breakdowns proposed by Mechanic [1], McKinlay [2], and Gibson [3], these may be characterized as the sociocultural approach, the sociodemographic approach, the social-psychological approach, the organizational approach, and the social systems approach.

## The Sociocultural Approach

Research performed from a sociocultural perspective has viewed health services as part of a cultural complex and, as such, related to other social institutions in a society or subculture. The organizational form that health care delivery assumes is highly dependent on the cultural setting. For example, Glaser [4] demonstrates how the organization of hospitals in various countries depends on religious, family, and economic institutions.

Assumptions prevalent in a society about causes of disease are probably the most important determinant of the organization of hospitals, and such explanations are intimately linked to religion. On the basis of data from 16 countries, Glaser shows that the more widespread the religious belief in a society that illness is due to natural events and can be reversed by human actions, the greater are the resources invested in hospitals and the greater the utilization of hospitals. Family structure affects hospitals in two ways. First, there are fundamental differences among societies in the extent to which the structure of the family permits an individual to be hospitalized; in some instances, too, this structure requires some modification in the role of the patient as defined by the medical professions. Secondly, family structure affects the recruitment of women for

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professional positions within the hospital. The freedom granted women to enter the labor force and proscriptions regarding the types of work appropriate for women clearly affect the roles they perform within the hospital. The effect of the economy on hospitals is seen in the greater complexity of hospitals in industrialized societies, due to the greater degree of specialization and the greater use of technology. This reflects the fact that the hospital borrows its organizational form from other formal organizations in a society.

The comparative study by O. Anderson [5] of health service systems in the United States, Sweden, and England is even more comprehensive. He attempts to demonstrate how health services organizations have emerged in response to dominant factors in each of the three societies, considered to be liberal, representative democracies characterized by mixed economies and somewhat autonomous interest groups. The emergence of a middle class with entrepreneurial, managerial, and technical skills during the nineteenth century was instrumental in creating the industrial revolution, which generated a social surplus needed for health, education, and welfare. Anderson points out that by 1920 all three countries had evolved physical facilities, health manpower, and organizational features that largely remain to this day.

These same societal features that influence the organization of health services also profoundly influence utilization behavior. For example, Shuval [6] explains the relatively high utilization of health services in Israel on the basis of the latent functions they perform for immigrants: catharsis, a means of coping with failure, integration into the social system through contact with existing social institutions, status achievement through such contacts, and the resolution of conflicts between magic and science. The assumption of the sick role thus serves a functional role in the social acculturation of immigrants.

In attempting to account for variations in individual utilization behavior, personal recognition of symptoms and the response to them have also been shown to be culturally conditioned. Zborowski [7] found quite different responses to pain among ethnic groups in New York: Jews and Italians responded to pain emotionally, while the Irish tended to deny pain altogether. These differences were accounted for largely in terms of family socialization practices with regard to early experiences of illness and injury.

Zola [8], in a similar study of outpatients at Massachusetts General Hospital and the Massachusetts Eye and Ear Infirmary, also found differences between Irish and Italians even when patients were matched on sex, primary diagnosis, duration of illness, and clinically judged seriousness. Irish patients presented complaints concerning the eye, ear, nose, and throat four times more frequently than Italians, but they were much less likely than the Italians to complain of pain in presenting their symptoms. Moreover, in communicating their symptoms to a physician, the Irish limited and understated their medical disorders while the Italians more frequently generalized and overstated theirs. Zola attributes these tendencies to culturally learned patterns of dealing with problems. Among the Irish the pattern is denial, while dramatization serves the same purpose among Italians. These differences in reporting symptoms can even lead to

diagnostic differences on the part of the physician, as Zola reported in another study [9].

Suchman [10], in studies of ethnic groups in New York's Washington Heights community, goes further in explaining these subcultural differences. Characterizing the subjects in terms of their tendency to interact rather exclusively with others from the same ethnic background, he found that the degree to which they belonged to close friendship groups and the importance to them of custom, tradition, and family authority directly affected the source of medical care they sought as well as their knowledge about disease, skepticism of medical care, and need to rely on others for help when ill. The medical orientation in turn also affected the decision regarding source of care.

### **The Sociodemographic Approach**

A multiplicity of studies have demonstrated that variations of utilization behavior can be related to age, sex, education, occupation, ethnicity, socioeconomic status, and income [11-13]. McKinlay [2] has pointed out that such studies are usually based on secondary analyses of routinely collected data, a technique that has been criticized by Kitsuse and Cicourel [14] and by Sellin [15]. In recent years, however, surveys have also been used to collect such data [12,16].

While the relation of some sociodemographic factors to utilization has remained stable, others have changed rather considerably over time. Bice and his associates [17] present data from the U.S. National Health Survey indicating that when health status is taken into account, differences in utilization of physician services among different income groups persist only among children and among adults who experience the most severe levels of disability; race and educational level, however, continue to be strongly associated with utilization of health services. In attempting to explain these relationships, the authors cite studies that suggest variables considered to intervene between sociodemographic factors and utilization behavior, especially Suchman's study [10] already referred to, which concluded that choice of medical facilities in the Washington Heights community was influenced indirectly through social group structure and medical orientation as well as directly by socioeconomic factors.

Lerner [18] concludes, on the basis of a review of existing empirical data, that the lower-class population experiences substantially higher rates of general mortality, infant mortality, and severe illness. Health status in turn is strongly related to utilization of health services. Richardson [19] found that when health status is taken into account, the relation with sociodemographic variables is strongest for persons who experience milder illnesses. Andersen and Benham, as well as Richardson, indicate that the lower-class population is sensitive to the method of financing health services. The Andersen and Benham study [20] shows that demand increases dramatically when insurance coverage is extended to low-income groups. Richardson's study [19] of OEO-sponsored programs finds a similar increase in physician use among persons with third-party cover-

age. This is not too surprising, since a large number of studies link income to utilization [12,21,22].

Even when cost barriers are eliminated, however, differences in utilization among various groups within a population still exist. For example, several studies have demonstrated social class-related differences in utilization even under prepaid plans [23,24]. Even a national health service such as England's has apparently been unable to do away with social class-related differences in utilization [2,25,26].

There is little to be gained by continuing to amass additional evidence of gross sociodemographic differences in utilization behavior. Rather it is necessary, as Mechanic [27] has pointed out, to develop models that explain how persons come to realize that they are ill and how they decide on a source of care.

### **The Social-Psychological Approach**

The social-psychological approach addresses itself more directly to the above question. Stoeckle and associates [28] review much of the analytic literature on the seeking of medical care, citing studies that appear to indicate a high level of unmet medical needs in the population, and suggest that important factors other than need must affect the decision as to whether or not to seek medical care. They outline three major factors in the patient's decision to seek help: his knowledge, beliefs, and attitudes concerning his symptoms; his attitudes and expectations regarding physicians and health services in general; and his definition of sickness and determination of the necessity for professional care.

The studies by Zborowski [7] and Zola [8] discussed earlier are particularly enlightening with regard to the role of the first of these factors. Attitudes and expectations regarding the physician are studied in Bloom and Wilson's analysis [29] of patient-practitioner relationships, in which the role of the physician is viewed as being defined in part by the patient's expectations, while the physician's expectations in turn clearly affect the patient's role. These authors point out that while Parsons [30] views the patient's behavior as being influenced by socialization patterns internalized from the normative values of a culture or subculture, Freidson [31] views the process of seeking medical care as involving a network of consultants called the lay referral structure that influences the individual's behavior. In some instances values and expectations may be so disparate that a single encounter between a patient and a physician may preclude any further consultation, as has been documented among Mexican-Americans by Saunders [32] and Clark [33]. On the third factor, a study by Zola [34] sheds some light on how the decision to seek care is made.

In studying illness behavior among the working class, Zola identified five triggers or circumstances that resulted in the decision to seek medical care. The first circumstance was an interpersonal crisis that called attention to the patient's symptoms. The second, termed "social interference," occurred when symptoms began to interfere with valued social activities. The third circumstance was sanctioning, which occurred when significant others told him to seek

such care. Additionally, persons sought care when they perceived a threat to their vocational or avocational activities and when they were able to compare the nature and quality of the symptoms currently experienced with symptoms they or their friends had experienced on an earlier occasion.

A rather significant finding was that the relative importance of these circumstances in a person's decision to seek care varied by ethnic group. The first two circumstances, interpersonal crisis and social interference, were most important for Italians, while the Irish responded overwhelmingly to sanctions by others. Anglo-Saxons in the sample were most concerned about possible threats to their vocational activities. Zola [34, p. 355] concludes that these differences "... reflect not merely something inadequately learned ... but rather ... are, more likely, part of the value orientations and experiences that one has been subject to from early childhood and that influence what kinds of things and behaviors one considers important and, thus, when one should be upset enough to do something."

In examining social-psychological factors that affect the decision to consult a physician, Kasl and Cobb [35] distinguish three types of behavior. Health behavior involves actions on the part of the healthy person to stay well; illness behavior involves activities by a person who is ill to define his condition and to seek a remedy; activities by an ill person to get well constitute sick role behavior. The authors identify perceived threat of disease and perceived value of preventive action as accounting for much of the variation in health behavior; psychological distress is an important variable that influences illness behavior; and sick role behavior is further influenced by the demands of the perceived sick role norms.

Kadushin [36] has identified several stages in the decision to seek psychotherapy, including recognition by the patient that he has an emotional problem, discussion of the problem with friends and relatives, deciding to seek professional care, selection of a professional area for help, and finally, the selection of a specific practitioner.

Mechanic [1] has also attempted to specify the various stages and the types of decisions involved in the seeking of medical care. His model views the perception of symptoms and the individual's response to them as critical in the decision. Persistent symptoms that disrupt social activities and are viewed as serious may ultimately lead to the seeking of professional care. The final decision, however, depends on the patient's and his family's tolerance for deviant behavior, his knowledge about possible medical conditions that may underlie the symptoms, competing needs, and the availability of treatment.

Suchman [37] extends this analysis of illness behavior by dividing the sequence of events into five stages at which critical decisions regarding the future course of medical care are made. The "symptom experience stage" involves the perception and interpretation of symptoms. During the second stage the person decides that he is sick and needs professional assistance. During this "assumption of the sick role" stage he seeks advice and information through the lay referral system. In the third stage, "medical care contact," a medical diagnosis and treatment regimen are sought from a professional; but only in the next stage

does the person decide whether or not to become a "dependent-patient." After relinquishing certain of his decision-making prerogatives and following the recommendations of the physician, he ultimately enters the "recovery or rehabilitation" stage. In the case of chronic illnesses or physical impairment, a process of resocialization may be required before the patient can return to his normal role in society.

### **The Organizational Approach**

The organizational approach, which examines the structure of the health care delivery system in order to account for differential health and illness behavior, has led to attempts to compare the health care systems of the United States and other countries [5,38].

O. Anderson's comparison of health services in the United States, Sweden, and England [5] finds that differences among the three systems have declined in a number of important ways. Differences in the supply of physicians and hospital beds have narrowed markedly, although the United States is still "overdoctored" relative to the other two countries. Variation in the use of hospitals has diminished. Admissions have risen in all three systems, while the average length of stay in England and Sweden has dropped and is now somewhat closer to the U.S. figure. The same proportion of the population in all three countries sees a physician at least once a year. While the total cost of health services as a percentage of GNP has remained about the same in England, it has risen considerably in the other two countries, especially in Sweden, where it surpassed the U.S. percentage in 1968.

Anderson also points out that the three systems are currently beset by the same problems, namely, rapidly rising expenditures for health services due to increased demand and rapidly increasing costs, shortages of certain personnel and facilities, and maldistribution of health services. This common concern has found expression in renewed attempts at planning and regionalization, resulting in increased bureaucratization and depersonalization of services. Major differences among the systems nevertheless persist, since each country has evolved a pattern of financing and organization that is consistent with the unique characteristics of its social and political systems. In the United States a market situation with respect to health services continues to exist. Funding is primarily from private sources, although the proportion of expenditures from the public sector is growing. The emphasis is on the pooling of risk for the population through various insurance programs. England has maintained a publicly financed national health service, with the emphasis on equal access. Sweden appears to be neither as individualistic as the United States nor as socialistic as England; it has attempted to realistically finance welfare programs as the economy has expanded.

Despite common features and problems, the three health systems do not appear to be converging [39]. England is not shifting from a publicly supported capitation payment system and a separate salaried hospital staff. In Sweden,

municipal governments continue to own, maintain, and staff general hospitals; and general practitioners who provide care outside of hospitals are paid on a cash-benefit basis, with the government subsequently reimbursing the patient for most of his expenses. In the United States, fee-for-service is firmly established, and most plans for national health insurance would retain this feature, although incentives are being provided to induce physicians to join prepaid group practices functioning on a capitation basis.

The organizational approach, far more than the others, leads directly to intervention strategies, since it views health and utilization behavior as being primarily determined by the structure of the health services system [3]. Since health services are provided through a particular form of social organization, it is assumed that the actions of participants can be understood and modified through the incentive and reward system. This is the point of departure for studies by Roemer [40] and by Glaser [41]. They analyze the effects of various payment systems in the United States and in 16 other countries and attempt to summarize the empirical evidence regarding the effects of payment systems on the delivery of health care and on the medical profession. Not too surprisingly, both authors conclude that the adoption of a particular payment plan results largely from the social, economic, and political characteristics of a country and that no one plan is inextricably linked to a particular organizational scheme. Nevertheless there are predictable consequences once a payment mechanism is adopted.

In the more affluent countries with high incomes and taxation capable of supporting health insurance, fee-for-service results in a high volume of medical services and high income levels for physicians, although at considerable cost to the country. At the same time there may be negative consequences for the quality of care. Roemer [40] offers evidence suggesting that a good deal of unnecessary surgery occurs in the United States, about half of which is performed by "nonqualified surgeons" in the estimation of the American College of Surgeons. This comes about largely because of the disincentives under the fee-for-services scheme to refer patients to specialists or from one specialist to another. The development of fee schedules also affects the practice of medicine. More expensive procedures are substituted for less expensive ones, while failure of third parties to pay for certain procedures may result in the underdevelopment of an entire medical specialty.

Salaried payment is invariably associated with some organized form of health services, with group surveillance over the practitioner as a distinguishing characteristic. While the volume of services tends to be lower under this plan, there is some evidence that the quality of care provided is higher than under a fee-for-service plan. For example, a comparison of subscribers to the Health Insurance Plan of Greater New York, which utilizes salaried physicians, with a comparable insured population served by private physicians on a fee-for-service basis showed lower perinatal mortality rates among the HIP group [42].

The most extensive experience with the third major payment scheme, capitation, has occurred in England, although there is much interest in this financing

arrangement at present in the United States as a way of slowing the upward spiral of health services costs. Costs are lower under capitation than under a fee-for-service system, since physicians are paid no more for expensive modes of treatment than for inexpensive ones. There is no incentive under capitation to provide a maximum volume of cases, however. While proponents of capitation argue that preventive care will be enhanced by this method of payment, there is evidence from only two studies of prepaid group practice in the United States to support this contention [42,43]. Instead there appears to be a tendency toward excessive referral to physicians and services outside the panel or group, and much care may be hasty and perfunctory [41]. In fact, Glaser [41, p. 287], after reviewing capitation plans in a number of countries, concludes that

Capitation cannot reorient styles of medical practice, but it can support traditional approaches. Probably it reinforces a traditional approach to the patient, and unnecessary or drastic medical procedures are not encouraged. If medical care and medical education traditionally emphasize therapy, more than a capitation system is necessary to instill a preventive viewpoint.

Interest in prepaid group practice based on capitation has grown rapidly in the United States. A recent study [44] indicates that 60 prepaid group practices at present provide comprehensive enough care in the United States to be designated as Health Maintenance Organizations, while 80 more are in some stage of development. It is estimated that as many as 50 million people could be enrolled in these plans by 1980 if enabling legislation were enacted.

As this organizational form has become more prevalent, attempts have been made to determine how it affects the delivery of health services. Prepaid group practice has been evaluated in terms of choice of plan, client satisfaction, physician participation, utilization of ambulatory services, hospital utilization, and costs. These studies have been reviewed by Weinerman [45] and by Donabedian [46,47]. While the utilization of ambulatory care is about the same under prepaid group practice plans and fee-for-service plans, unjustified surgery rates and hospital utilization rates are considerably lower; according to Donabedian, these differences are largely the result of the nature of the incentives and professional controls that characterize prepaid group practice plans. Moreover, costs under prepaid group plans are considerably lower, largely as a result of reduced hospitalization.

Structural characteristics, however, cannot account for differences in utilization behavior that persist even when financial barriers are removed through capitation and care is provided through an organized professional group. A study of the OEO population enrolled in the Kaiser Foundation Health Plan in Portland, Ore. [48], found that these low-income families used a greater proportion of emergency department services and after-hours services. A second study, involving use of pediatric services among subscribers to the Kaiser Foundation Health Plan in Oakland, Calif. [23], showed different utilization patterns for whites and blacks. Among the latter, fewer visits were for health supervision, visits were more frequently not made by appointment or by prior arrangement



with a specific physician at the drop-in clinic, and fewer families considered a group pediatrician to be their children's regular physician.

The structural approach also views individual health and illness behavior as being affected by organizational factors. Here the focus is on structural features that affect the interaction between professionals and clients in the health services system. Walsh and Elling [49] have identified three types of studies with this focus. The first attempts to account for utilization behavior in terms of the differences in the social class backgrounds of medical personnel and patients. McKinlay [2] summarizes a number of studies indicating that middle-class providers of health services are insensitive to the perspective of working-class patients. Since members of the working class relate differently to middle-class professionals, they receive differential treatment.

A second group of studies examines bureaucratic organizational factors as influencing the behavior of professionals and the nature of the patient's contact with the health system. For example, Ben-David [50] has examined the kind of physician-patient relationship that has developed and the way in which physicians define their functions under a bureaucratized health services system in Israel. He found that the transfer of authority from the physician to the organization was viewed by physicians as a loss of status. Moreover, physicians resolved their difficulties with patients in two ways: they tried to create a circle of their own patients similar to private practice, or they attempted to create a personal authority and status for themselves by overemphasizing the scientific nature of their work. The second type of physician felt that it was necessary to keep patients at a distance. Ben-David sees this resulting from the situation of the physician in a formal organization. Since professional colleagues monopolize social communication, the physician is concerned mainly about his esteem and feels little personal responsibility for a patient. Because of the division of labor that exists, he feels little service motivation.

Ludwig and Gibson [51] studied a subpopulation of applicants for social security disability benefits who reported their health to be poor but who had not sought health services of any kind within the preceding six months. Not only was low income associated with failure to seek care, but recent contact with welfare agencies also increased the likelihood that a person had failed to utilize health services. These authors suggest that persons who had to apply for welfare would also have to rely on less convenient and less personal public clinics instead of private physicians for care; consequently they had little faith in the health care system and underutilized its services.

A third type of study attributes differences in utilization behavior to characteristics of the lower socioeconomic class that make it difficult to provide them with effective health care; these studies represent something of a fusion between the sociocultural approach and the structural approach.

Strauss [52] analyzes the problems of providing medical care to low-income groups in the United States from all three perspectives. He sees the middle-class bias of most professional health workers as having a profound effect on the quality of care received by low-income patients. As increasing numbers of low-

income patients enter community hospitals as a result of the spread of health insurance, he anticipates open opposition from hospital administrators, medical staff, and middle-class patients. He also points out, as do Rosenblatt and Suchman [53], that some of the underutilization of health services by low-income groups is due to the organization of medical services. Large hospitals and clinics are characterized by complete division of labor and involve the coordination of highly specialized services and staff, the entire effort being characterized by bureaucratic impersonality. Low-income persons are ill equipped to understand or to cope with these organizations. Finally, Strauss suggests that low-income life-styles are sufficiently different from middle-class styles that they must be explicitly taken into account in organizing health services for these groups. He points to the pervasive problematic character of their lives, the distances they must travel to clinics, the costs of such travel, and the absence of family members who normally maintain a household and who can care for sick individuals as among the factors that contribute to underutilization of health services by low-income persons.

### **The Social Systems Approach**

The social systems approach has recently emerged as a way of understanding utilization behavior. This approach views the health service system as consisting of interrelated components, such as physicians and facilities, that interact with one another and with the population they serve.

Navarro [54] used a systems framework to develop a model of personal health services. He conceived of the patient as being in one of five states within the health service system: primary medical care, consultant medical care, hospital care, nursing home care, or domiciliary care. All other persons served by the health system were considered to be in a sixth state defined as the population not under care. A Markovian model was developed to characterize the movement of patients from state to state over time. The model was used to predict the fractions of population that would be expected to be in the various health service states at different time periods in the future. He was also able to demonstrate through simulation the effects of various policies that would affect the rate of transition from one state to another, such as shifting more patients from hospital care to nursing home care.

On the basis of a social systems accounting scheme proposed by Gross [55], J. G. Anderson [56] has developed a social systems model that permits prediction of the effect of changes in the social structure of the population or of the supply of health services on utilization and on health status. The model views sociodemographic characteristics such as age and ethnicity and ecological features such as the urban structure of the population as affecting aggregate levels of education, employment, and income, which in turn affect the supply of hospital beds. Moreover, hospital utilization and health status are causally related to the supply of hospital beds, aggregate levels of education, employment, and income, and sociodemographic characteristics of the population. Parameters of

the model were estimated with data from the U.S. Census, annual guide issues of *Hospitals, J.A.H.A.*, and vital statistics. The model has been used to predict the effects of urbanization and migration on mortality [57], morbidity [58], and hospital utilization [59] in New Mexico.

This model has been extended to include two other components of the health services system, namely, general practitioners and medical specialists [60]. It incorporates the previous supply of manpower, since there is evidence that previous levels of manpower significantly affect current levels. New Mexico data were again used to estimate model parameters and to examine the effects of structural changes in the population and the health service system on infant mortality rates. Both neonatal and postneonatal mortality rates were found to be highly sensitive to the supply of physicians and hospital beds.

Moreover, examination of the model equations provides insight into the process by which the supply of physicians and short-term general hospital beds changes over time. Hospital beds increase with the supply of both general practitioners and specialists. This may reflect the instrumental role that physicians play in mobilizing the community resources necessary to expand the supply of hospital beds. Hospital facilities, in turn, are strongly related to the supply of medical specialists. As the hospital bed supply increases, so does the supply of specialists. This suggests that once a community is successful in expanding its hospital facilities, it is then able to attract additional medical specialists. The supply of general practitioners, in turn, is affected by the supply of specialists. General practitioners are in greater supply in communities that have fewer specialists. This may indicate a substitution effect, with general practitioners being substituted for specialists in communities in which specialists are in short supply.

Social systems models have been developed to account for individual utilization behavior as well. Suchman [10] has developed a model that analyzes the relations between social and medical factors within a framework that links sociodemographic characteristics to social group structure. Both are linked to health services utilization through an intervening set of medical orientation factors. Sociodemographic factors were found to affect choice of medical care indirectly through health status and medical orientation as well as directly. Social group structure also indirectly affected choice of care through its effect on medical orientation.

While no empirical evidence is presented, Kasl and Cobb [35] postulate a theoretical model of health and illness behavior that is largely behavioral. The effect of behavioral factors is modified by a variety of characteristics of the individual and his environment.

J. G. Anderson and Bartkus [61] have developed a social systems model to account for differential patterns of health and illness behavior among subscribers to a prepaid medical group plan for a university student population. The model includes sociodemographic, ecological, need, and social-psychological variables. Both male and female subscribers were found to utilize the services provided more frequently as their need for medical care increased. Use of these services, however, appeared to be affected by a lay referral system. Negative

appraisal of the services offered through the plan by other members affected the subscriber's own evaluation of these services and the rate at which he sought assistance from private practitioners outside the plan. Among female subscribers, those who were more aware of physical conditions that might be symptomatic of illness were more inclined to seek outside professional medical care. The more limited services offered by the plan for female subscribers may largely account for this phenomenon. Of particular significance is the finding that socio-demographic variables had little direct effect on decisions regarding the choice of health services; rather, variables such as age, marital status, and socioeconomic status affected symptom sensitivity, need, and the subscriber's evaluation of the services provided, all of which in turn affected health and illness behavior.

J. G. Anderson and Eggers [62] constructed a separate model to explain differences in the use of preventive and need-specific health services by members of the same prepaid group plan. High-socioeconomic-status subscribers were found to use more preventive services provided by the plan. Increased awareness of symptoms and a more positive appraisal of the services provided resulted in increased use of physician services both within and outside the plan among older subscribers. Married subscribers and females consulted outside physicians more frequently; the former sought preventive care outside and the latter sought care for specific medical conditions. Increased disability and a more negative appraisal of the plan's services appear to partially account for female outside use of services. The model suggests that physician-patient relationships that affect the attitudes of subscribers toward prepaid group practice plans are critical if such plans are to succeed in providing continuity of care at low cost to the subscriber.

### **Future Directions for Health Services Research**

Each of the five approaches discussed, while providing unique insights, has severe limitations when used exclusively to view utilization behavior. At the extreme, the sociocultural approach views changes in utilization as coming about largely through changes in the structure of society. As Gibson [3] has observed, if health and illness behavior are determined almost exclusively by societal characteristics, then little is to be gained by changing the organizational structure of health services; this approach does not lead to models that suggest intervention strategies.

On the other hand, studies from the sociocultural perspective demonstrate the importance of taking into consideration functional needs of a society or subculture in designing health service systems for specific populations. Paul [63] and McMichael [64] document the failure of community health programs that failed to recognize the social functions that medicine and health care perform. Moreover, J. G. Anderson [56] has reviewed a number of studies in which the introduction of innovative medical care programs has had unanticipated effects due to the integrated nature of societal institutions. These second-order consequences were initially overlooked because of the tendency of planners to focus

exclusively on the intended outcomes of a program and to ignore its wider social ramifications.

A substantial amount of literature indicates that utilization behavior is associated with sociodemographic factors. Unfortunately, much of it is descriptive rather than analytical, and findings of gross differences in health and illness behavior do not reveal why variations exist. However, the indirect effects of these factors are of increasing importance as governmental programs reduce the economic barriers to health care. Indirectly sociodemographic variables account for a significant part of the variation in utilization behavior because of their effects on important intervening variables such as need, recognition of and response to symptoms, knowledge about disease, perceived threat of disease, motivation to get well, and choice of health services [10,17,27,61,62].

There are also impressive empirical data indicating that social-psychological variables are important in explaining why people exhibit certain health and illness behavior. McKinlay [2] proposes, as does Mechanic [27], that future research could be fruitfully directed toward the specification in much greater detail of the distinct stages in the process of seeking medical care. Since each stage involves different types of decisions, it is important to specify the nature of these decisions and the various factors—behavioral, situational, and organizational—that affect them.

Nevertheless, the social-psychological perspective, in and of itself, is severely limited when it comes to proposing strategies for change. Gibson [3] argues that the focus on personal characteristics that characterizes this approach largely ignores the organizational context in which health and illness behavior occur. This lack of a systematic perspective results in intervention strategies that rely heavily on public education in order to reduce the incongruities between the expectations of patients and the health service system, while largely ignoring the necessity of changes in the health services delivery system.

The comparative studies by O. Anderson [5] and by Glaser [4] cited earlier are instructive in regard to proposals to transplant the entire institutional complex of a specific health service system essentially intact from one society or sub-cultural group to another. The health service systems in the United States, Sweden, and England apparently show no indication of converging to a common organizational or financial structure despite marked similarities in utilization and quite similar problems, and Glaser disabuses the reader of the notion that utilization behavior can be understood and changed solely through the structural means of physician remuneration. Schultze [65, p. 5] has put it rather succinctly:

All too often public programs in such fields as education, health, crime control, urban development, and pollution control ignore the system of incentives and structural relations within which social policies must operate. A plan and a fistful of money will not be enough to achieve the objectives of public programs if the plan runs counter to the motivations, rewards, and penalties of the public and private institutions which must carry it out.

At the same time, Roemer [40] and Glaser [4] have demonstrated that there are quite predictable effects of any one particular remuneration system on the behavior of physicians and patients. What is more, when combined with other approaches such as the sociocultural perspective, this approach leads to major intervention strategies, as in the arguments of Strauss [52] and of Rosenblatt and Suchman [53] that low-income groups in the United States are medically disadvantaged because of a drastic mismatch between the organizational structure of medical care and their life-styles and that a radical reorganization of health services will be necessary in order to extend quality care to these groups.

The social systems approach that views the individual as part of a system consisting of interrelated components promises to provide major insights into utilization behavior. However, it too can be employed in too narrow a fashion. For example, Navarro [54] totally ignores the sociocultural, sociodemographic, and social-psychological factors that influence the behavior of an individual in a health services system, just as the largely social-psychological models proposed by Suchman [10] and by Kasl and Cobb [35] totally ignore the organizational context in which the utilization behavior occurs.

At present, in far too many instances, health services research on utilization behavior is descriptive and narrowly focused. Little is to be gained from future research based exclusively on any one of the approaches described. What is sorely needed is careful, theoretically based attempts to explicate causal structures that incorporate major features of all these approaches. The social systems approach appears to provide a valuable framework in which such research can be undertaken.

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